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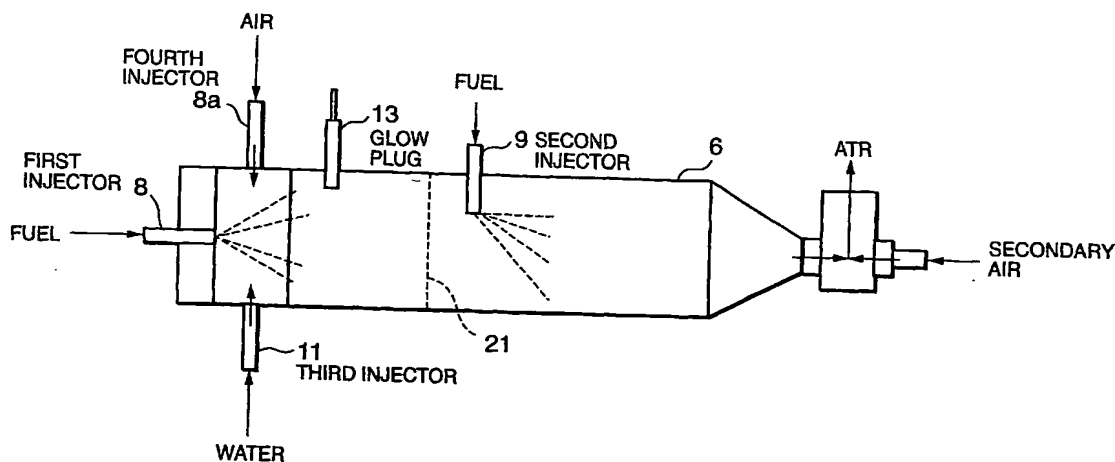
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(54) Title: FUEL VAPORIZING DEVICE



(57) Abstract: Hydrogen-rich reformat gas is produced by a fuel reformer (2) from fuel vapor containing hydrocarbon, which is produced by a fuel vaporizer (6), by means of a partial oxidation reaction and a steam reforming reaction. A fuel injector (8, 9) supplies fuel to the fuel vaporizer (6), and an air injector (8a) supplies air to the fuel vaporizer (6). A glow plug (13) partially oxidizes the air-fuel mixture inside the fuel vaporizer (6). By controlling the air supply amount in relation to the fuel supply amount to obtain an excess air factor corresponding to a predetermined rich air-fuel ratio, a part of the air-fuel mixture in the fuel vaporizer (6) is partially oxidized, and the remaining fuel vapor is heated by the oxidation heat. As a result, the partial oxidation reaction and steam reforming reaction in the fuel reformer (2) are performed with a favorable balance.